

Sept 21

## 2.1 Comparing & Ordering Rational Numbers

September 21, 2015 12:45 PM

What is a rational #? A # that can be written as a fraction. Ex:  $\frac{3}{4}$ ,  $1.2 = \frac{12}{10}$ ,  $-5 = \frac{-5}{1}$

Its "opposite"? opposite sign Ex:  $\frac{3}{4}$  and  $-\frac{3}{4}$ ,  $1.2$  and  $-1.2$

Its equivalent?  $\frac{3}{4} = \frac{75}{100} = \frac{6}{8} = \frac{-3}{-4}$

↳ can be reduced down to the same fraction

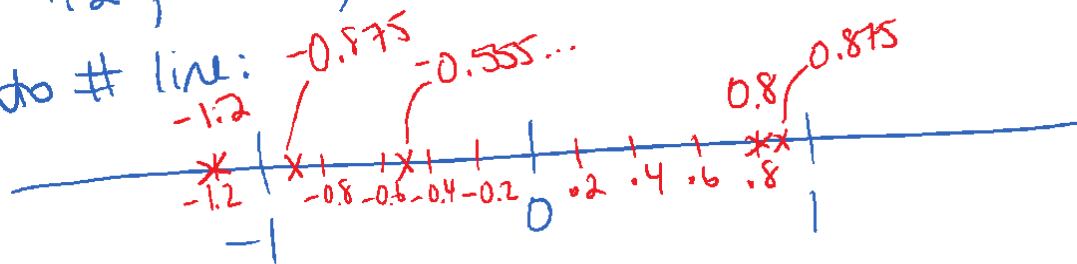
A. Put these rational #s in order from smallest to largest:

$$-1.2, \frac{4}{5}, \frac{7}{8}, -0.5, -\frac{7}{8}$$

put into same form (decimals):

$$-1.2, 0.8, 0.875, -0.555..., -0.875$$

put onto # line:



Order:  $-1.2, -0.875, -0.555, 0.8, 0.875$

$-1.2, -\frac{7}{8}, -0.5, \frac{4}{5}, \frac{7}{8}$  "ascending" order

B. Compare  $-\frac{3}{4}$  and  $-\frac{2}{3}$

① Find a common denominator:

$$-\frac{3}{4} \times \frac{3}{3} = -\frac{9}{12}$$

$$-\frac{2}{3} \times \frac{4}{4} = -\frac{8}{12}$$

comparing  $-\frac{9}{12}$  and  $-\frac{8}{12}$

which is bigger?  $-\frac{8}{12}$  (not as negative)

② Write as decimals

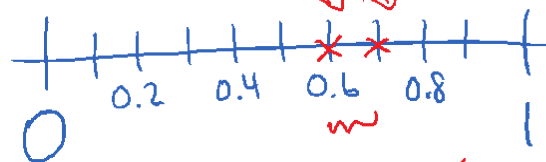
$$-\frac{3}{4} = -0.75$$

$$-\frac{2}{3} = -0.\bar{6}$$

bigger (less negative)

C. Find a rational # that is between two given rational #s.

Ex 0.6 and 0.7



$$\begin{aligned} 0.6 &= \frac{6}{10} \\ &= \frac{60}{100} \end{aligned}$$

$$\begin{aligned} 0.7 &= \frac{7}{10} \\ &= \frac{70}{100} \end{aligned}$$

$$\frac{65}{100}$$

$$0.65 \checkmark$$

$$0.615 \checkmark$$

$$0.62 \checkmark$$

$$0.61 \checkmark$$

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